

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

RECEIVED

AUG 20 1993

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Local Exchange Carriers' Rates,
Terms, and Conditions for Expanded
Interconnection for Special Access

CC Docket No. 93-162

DIRECT CASE OF GTE

GTE SERVICE CORPORATION AND
ITS AFFILIATED GTE DOMESTIC
TELEPHONE OPERATING
COMPANIES

F. Gordon Maxson
1850 M Street, N.W.
Suite 1200
Washington, D.C. 20036
(202) 463-5291

Richard McKenna, HQE03J36
GTE Service Corporation
P.O. Box 152092
Irving, TX 75015-2092
(214) 718-6362

Gail L. Polivy
1850 M Street, N.W.
Suite 1200
Washington, D.C. 20036
(202) 463-5214

August 20, 1993

THEIR ATTORNEYS

No. of Copies rec'd
List A B C D E

027

TABLE OF CONTENTS

	PAGE
SUMMARY	iii
BACKGROUND	1
Issue A: Rate Elements	2
1. General Support Requirements	2
2. Individual Rate Elements	10
Issue B: Rate Structures	23
Issue C: Interconnector Space Provisions	35
Issue D: Dark Fiber Service	38
Issue E: Channel Assignment Control	39
Issue F: Warehousing and Use of Space	40
Issue G: Termination Notice	41
Issue H: Service Termination Provisions	44
Issue I: Catastrophic Loss	45
Issue J: Relocation Provisions	46
Issue K: Insurance Provision	48
Issue L: Liability Provisions	54
Issue M: State/Interstate Tariffs	57
Issue N: Letters of Agency	58
Issue O: Inspection of Space and Facilities	59
Issue P: Payment of Taxes and Assessments	62

SUMMARY

This Direct Case is submitted in response to the Commission's order designating investigation of issues arising out of GTE's Expanded Interconnection Service tariff filings.

GTE shows that it has carried its burden of demonstrating that the rates, rate structure, tariff terms and conditions are reasonable and in compliance with the Commission's orders and rules.

RECEIVED

AUG 20 1993

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Local Exchange Carriers' Rates,)
Terms, and Conditions for Expanded)
Interconnection for Special Access) CC Docket No. 93-162
)

DIRECT CASE OF GTE

GTE Service Corporation ("GTE"), on behalf of its GTE affiliated Telephone Operating Companies (the "GTOCs") and the GTE System Telephone Companies (the "GSTCs"), (collectively "GTE"), hereby submit this Direct Case in response to issues designated for investigation in the Common Carrier Bureau's Order Designating Issues for Investigation (the "EIS Designation Order"), DA 93-951, released July 23, 1993.

BACKGROUND

On February 16, 1993, the GTOCs and GSTCs filed revised tariff pages to offer expanded interconnection service (EIS) to become effective May 17, 1993¹. Pursuant to the Special Access Tariff Order² the proposed tariffs were suspended for one day

¹ See, GTOC Transmittal No. 771 and GSTC Transmittal No. 34. GTOC Transmittal No. 789 and GSTC Transmittal No. 43 filed May 14, 1993, deferred the effective dates from May 17, 1993 to June 16, 1993.

² Ameritech Operating Companies Revisions to Tariff FCC No. 2, *et.al*, 8 FCC Rcd 3697 (Com.Car.Bur)(1993) ("Special Access Tariff Order")

and modified rates were allowed to become effective on June 16, 1993, subject to an investigation and accounting order³.

On July 23, 1993, the EIS Designation Order established 16 issues for investigation. Where applicable to GTE, these issues will be addressed in this Direct Case.

Issue A: Are the rate levels established in the LECs' physical and virtual expanded interconnection tariffs excessive?

General Support Requirements

(a) Tariff Review Plan (TRP)

Attachments 1 (GTOC) and 2 (GSTC) to this direct case display certain cost support data in a uniform format, as specified in the Tariff Review Plan in Appendix C of the EIS Designation Order. This data includes disaggregated unit investments and expenses for recurring and nonrecurring EIS rate elements.

³ See GTOC Transmittal No. 802 and GSTC Transmittal No. 49 filed July 9, 1993, which added virtual terms and rates and proposed rates and charges for 11 additional offices where GTE's petition for exemption of the requirement to provide physical EIS was denied. See Expanded Interconnection with Local Telephone Company Facilities, Petitions for Exemption from the Physical Collocation Requirement, CC Docket No. 91-141, Memorandum Opinion and Order, DA 93-658 (released June 9, 1993). (Exemption Order) These transmittals were suspended for one day and added to the instant investigation. See Local Exchange Carrier's Rates for Expanded Interconnection for Special Access, CC Docket No. 93-12, Memorandum Opinion and Order, DA 93-879 (released August 4, 1993).

Costs associated with proposed rate elements have been disaggregated into the following broad categories or "functions" as set forth in the EIS Designation

Order⁴:

- (1) Entrance Facility Installation Function includes the costs of installing an interconnection arrangement from the manhole to the interconnector's space.
- (2) Entrance Facility Space Function includes costs of conduit, vault, riser, and similar space used to support an interconnection arrangement from the manhole to the interconnector's space.
- (3) Common Construction Function includes costs related to central office construction required for the provision of EIS that cannot be attributed to a specific interconnector, including (1) all design, engineering and project management for common construction and (2) all actual common construction, e.g., common environmental conditioning, common lighting, common floor reconditioning, excluding DC power.
- (4) Construction Provisioning Function includes the costs of ordering and provisioning the interconnector's space and cage, i.e., interconnector-specific costs associated with service order processing, preconstruction survey, design and engineering, space preparation and construction management and coordination.
- (5) Interconnector-Specific Construction includes costs for interconnector-specific space construction, e.g., cage construction, cage lighting, and AC power, excluding DC power installation, security installation, termination equipment, and common construction.
- (6) Floor Space Function includes costs for occupancy of central office floor space by the interconnector including all ancillary and "housekeeping" services, excluding all costs not associated with occupancy.
- (7) Termination Equipment Function includes all GTE-provided equipment in or adjacent to the interconnector's space that is used for cross connection functions, except the cross connection itself, e.g., POT frames, DSX boards, as well as equipment bays and other equipment installed by GTE in the interconnector's space.

⁴ Footnotes 41-54.

- (8) DC Power Installation Function includes all costs for providing DC power equipment for the interconnector.
- (9) DC Power Generation Function includes costs for providing DC power, excluding DC power installation costs.
- (10) Cross Connection Provisioning Function includes costs associated with service order processing, circuit design, provisioning, installation, and testing for the cross connection between the interconnector's space and GTE's main distribution frame (MDF).
- (11) Cross Connection Cable and Cable Support Function includes costs for all cabling and cable support structures between the interconnector's space and GTE's MDF.
- (12) Cross Connection Equipment Function includes costs for all equipment between the interconnector's space and GTE's MDF, e.g., repeaters, excluding all cable, cable support, and all termination equipment.
- (13) Security Installation Function includes costs for all construction associated with additional security needs attributable to interconnection.
- (14) Active Security Function includes the costs for providing additional security attributable to interconnection, e.g., the costs of providing extra security guards or escort service, excluding security installation costs.

Each rate element is displayed individually in the TRP for the relevant function.

As required by the EIS Designation Order (at para. 17), partitioned costs and illustrative rates for each function have been displayed in the TRP. The illustrative rates for the partitioned costs, except for interconnector-specific Construction Function and DC Power Installation Function, were calculated using the same unit of measurement as GTE's rates⁵. The sum of the partitioned unit costs are equal to the

⁵ The Construction Function and DC Power Function are shown on a per-interconnection basis in the TRP. This assumes 100 square foot interconnector's cage. The costs were partitioned from the Office Arrangement rate element and DC Power and were shown on a per-square-foot basis in GTE's initial tariff filing. The numbers on Lines 52 and 53 of the TRP should be

unit cost of GTE's rates and the sum of the illustrative partitioned rates are equal to GTE's rates.

Attachments 3 (GTOC) and 4 (GSTC) lists each rate element that is partitioned and mapped to the appropriate function set forth in the EIS Designation Order, and demonstrates that the sum of the costs and rates per unit of the partitioned parts equals the costs and rates per unit of GTE's proposed rates.

(b) Itemized Cost Information

(1) LEC should provide documentation for all items listed in the TRP, including relevant worksheets and source listings, cost factors (e.g., annual charge factors or carrying charges) with explanation and justification.

All cost factors are shown in Attachments 5 (GTOC) and 6 (GSTC). These factors are from GTE's 1992 annual charge factor studies for each jurisdiction. All other information contained in the TRP is explained in the Attachments.

(2) LECs must explain whether investment amounts are calculated on a prospective basis, embedded basis, or some other basis. LECs must justify the depreciable lives for each item of equipment, and percentage cost of money used in its rate calculations.

The basis of investment amounts, whether prospective, embedded or other, used in calculating GTE's rates are explained in the line-by-line detail sheets accompanying Attachments 1 and 2.

Attachment 7 displays the depreciation lives used to support rate elements included in Attachments 1 and 2. The lives used represent Average Service Lives

divided by 100 to tie back to the original numbers.

(ASL) underlying Commission prescribed depreciation rates effective December 31, 1991. These lives are used in conjunction with Average Net Salvage (ANS) factors to calculate the annual charge factors used within the filed rate elements. This method of computing annual charge factors is standard throughout the industry.

Attachment 7 contains copies of GTE's input sheets used for preparation of annual charge factors (Commission Whole Life Depreciation rates, ASL and ANS) and Commission published rate orders containing the same information.

The cost of money used in GTE's calculation is 11.25%

(3) For each nonrecurring charge (NRC) that recovers labor costs, LECs must describe each labor function, provide the estimated number of hours required for each function, describe the method of estimation, and provide estimated labor costs. LECs must describe whether the estimated labor costs reflect only wages, wages plus benefits, wages plus benefits plus loadings, or whether these costs are estimated on some other basis. If loadings are included in labor costs, LECs must describe the loadings in detail and what portion of the reported wage rate is attributable to loadings.

The only NRC that reflects work performed solely by GTE personnel is the Engineering Fee. The labor rates used to develop this rate include wages, benefits and two loadings: "Indirect Labor-Support & Supervision" and "Indirect Labor-Miscellaneous Items and Department Expenses".

Indirect Labor-Support & Supervision - accounts are charged with the incurred payroll costs, including overtime premiums, vacation, and holiday paid absences for employees who are above the first level or immediate supervisor level, but below the executive level, supervisor plant and staff activities, or who provide support for the indirect supervisor.

Indirect Labor-Miscellaneous Items and Department Expenses - charges to these accounts are for miscellaneous employee payroll and related expense items of indirect plant and engineering forces which are not chargeable to other payroll clearing accounts, final accounts, or functional clearing accounts.

These accounts are segregated by state and common forces. State forces are those whose activities are directly related to one state's activities, and therefore, distributed to the individual state's accounts, while common forces' activities could be provided for the benefit of more than one state. Costs associated with the common forces would be distributed to all state accounts affected.

The remaining NRCs; Building Modification, Office Arrangement and Cable Pull reflect work generally performed by contractors. In order to provide an estimation of labor costs based on the cost of similar previous jobs and/or costs shown in *The Means Building Construction Cost Data Book*.⁶

Attachments 8 and 9 shows the circuit equipment/COE engineering rates with overheads, without overheads, and the percentage attributable to overheads.

(C) Overhead Cost Information

(1) The requirements for this section are divided into three parts:

(a) Each LEC must provide the overhead amounts and overhead factors used to develop each rate element for EIS, explain the basis of the overhead amounts or "factors" and explain how they were derived. LECs should justify any "rounding" of

⁶ *The Means Building Construction Cost Data Book*, 1993 51st Annual Edition, published by R. S. Means Company, Inc.

costs included in the filed rates. LECs should provide numbers and associated sources used to compute any overhead ratios.

All overhead factors used in the development of EIS rates are included in Attachments 5 and 6. These factors were taken directly from the 1992 Annual Charge Factor Studies.

GTE did not apply rounding to any of the costs developed for this filing. GTE only applies rounding to the proposed rates.

(b) Each LEC must provide overhead factors for all DS1 and DS3 services, on a service-by-service basis. Overheads for generic DS1 and DS3 services must be provided, as well as discounted volume and term services and specialized services. LECs should explain the basis for any differences in overheads (1) among the various DS1 and DS3 services; and (2) between DS1 and DS3 services on the one hand and EIS on the other.

Attachments 10 (GTOC) and 11 (GSTC) provide overhead data of DS1 and DS3 services offered by GTE in the jurisdictions where EIS is tariffed. However, GTE fails to see the relevant purpose of this information. DS1 and DS3 services are subject to price cap rules. GTE has made several changes to certain DS1 and DS3 services over time, in accordance with the price cap rules. Attempts to compare the overheads of DS1 and DS3 services with overheads of proposed EIS rate elements in an effort to determine reasonableness is totally inappropriate and will result in invalid conclusions.

GTE has analyzed its DS1 and DS3 services to identify overheads in the current rates. However, given the limited time frame in which to respond to the EIS Designation Order and the extensive number of rate elements (168 per jurisdiction), GTE was unable to provide overheads for all rate elements.

In analyzing its existing DS1 and DS3 services, GTE has provided a ratio of the current tariffed rate as compared to the direct unit cost. It has also provided both in dollars and percentages, the overheads recovered by each service. Since the structure for DS1 and DS3 services is based on having a "1st System" plus additional systems, GTE displayed a first system plus increments of additional DS1s and DS3s to ensure that the service provided a contribution towards overheads. To compare overheads for competitive services such as DS1 and DS3 to a noncompetitive service, such as EIS, seems inappropriate. However, a cursory comparison shows that the percent of overheads recovered by DS1 and DS3 is comparable to EIS rates as originally filed by GTE.

(c) LECs should explain to what extent EIS overhead costs were adjusted to prevent double recovery of overheads by EIS rate elements, as described in the Special Access Tariff Order.

GTE made no attempt to double recover certain General & Administrative (G&A) overheads in its proposed EIS rates. EIS is unique in that it deviates from the usual "family" of LEC-provided telecommunications services. GTE developed rates that would recover, as closely as possible, the relevant costs associated with providing EIS. The annual charge factors used in establishing rates for all other interstate services were used for EIS. These annual charge factors are developed on a total company basis, not by jurisdiction. Many costs, such as maintenance and Customer Operations support, apply equally in all jurisdictions. One reason for this is that, where appropriate, GTE advocates the mirroring of interstate structure and rate levels to

avoid arbitrage. When cost supporting its rates, GTE assures that costs are recovered regardless of the jurisdiction by using factors developed on a total company basis. Using ARMIS data would make it difficult to maintain an equilibrium in rates between jurisdictions due to separation procedures that may reflect arbitrary decisions by governing regulatory agencies.

(2) LECs that have used "closure factors" should explain how the use of closure factors results in reasonable estimates of overhead costs for EIS.

GTE does not use closure factors in determining overheads.

(d) Sample Price Outs

Attachments 12 (GTOC) and 13 (GSTC) display the sample "price out" of 100 DS1 as specified in Sample Price Out Chart in Appendix D of the EIS Designation Order. In compliance with the EIS Designation Order at para. 22(d)(1), GTE has assumed (i) nonrecurring costs will be amortized over a 5-year period at an 11.25% interest rate and (ii) 100 square feet of partitioned (cage) space will be utilized. Other assumptions are listed in the Attachments.

Individual Rate Elements

(e) Nonrecurring Charges (NRCs) for Recurring Costs

(1) Any LEC that developed NRCs based on discounted taxes, maintenance, or costs other than depreciation expense and cost of money should explain why such rate development is reasonable. LECs should also justify the amortization period which they have selected for calculating the present discounted value. LECs should also provide the discount rate, the interest rate, the depreciable life, and the time period for computing the present discounted value used in their calculations and justify any differences.

GTE used factors, other than depreciation expense and cost of money in developing the Building Modification charge. In order to recover costs of maintaining the investment in the Building Modification charge, GTE included maintenance in its present value calculation. It is assumed that the additional investment for EIS will increase the value of the property and, therefore, increase the property taxes, which should be recovered by the cost causer. Federal and State Income Taxes are a function of the revenue generated by this rate element and should also be recovered.

GTE used a discount rate of 11.25% and a time period of 20 years, which matches the depreciation life. Under the discussion of Monthly Recurring Charges, following, is additional support for the appropriateness of including investments in the Building Modification rate element.

(f) Floor Space Charges

(1) The EIS Designation Order at para 22(f)(1) directs LECs to quantify the difference between the cost of book value (embedded costs) and the cost at market value (current or prospective costs) of land and building associated with central offices that offer EIS. The LECs are also required to provide estimates of the average cost per square foot under each method and justify of the methodology used in setting floor space charges.

GTE calculated floor space charges based on the replacement cost of the central office. Setting the tariff rates was accomplished by;

- a) Obtaining the surviving vintage investment by year for each central office.

- b) Adjusting each year's investment to a present day value to reflect the impact of inflation. This was accomplished by using the C.A.Turner Index which is described below.
- c) Totaling the adjusted investment amount and dividing by the total square footage of the building to determine a replacement investment amount per square foot⁷.
- d) Using this investment in the pricing model to determine a monthly annuity. The model takes the investment and applies the appropriate annual charge factors, taxes, rate of return, and depreciation life for the building account to determine the monthly value. The annual charge factors that were applied were plant-specific (maintenance) and an administrative factor which is composed of plant non-specific, customer operations, corporate operations, and miscellaneous (general support).
- e) Tariffing the monthly recurring value as the partition space rate (per square foot), which represents the replacement cost for that particular central office.

The C.A.Turner Index for Telephone Plant creates a multiplier for each surviving year of investment. This multiplier brings the investment amount to a present day value which represents the replacement cost, that is, the cost in today's dollars to build the same structure on a like-for-like basis. The C.A.Turner Index is a Generally

⁷ Land value was erroneously excluded from floor space charges. Based on a sample, however, the impact appears to be insignificant.

Accepted Accounting Procedure (GAAP) that is used throughout the industry as a method for valuing telephone plant. Attachment 14 displays three central offices and the associated surviving and adjusted investment totals.

Attachment 15 illustrates the difference between replacement cost, embedded cost, and market value cost. The embedded cost method is inaccurate since floor space should be based on the value of the building today versus the cost of the building years ago. If embedded costs are used, the year that the building was built becomes the decisive driver for the value of the floor space. The replacement cost is a more accurate method since it takes the initial investment and adjusts based on inflation factors in order to estimate a present day value.

The market value cost shown in the attachments represent the "estimate" published in the 1992 Building Owners and Managers Association International (BOMA) Experience Exchange Report. This report provides an estimate of the average rate of office space for cities throughout the United States. This method is also inappropriate for the following two reasons;

- 1) The cost of general office space is not an appropriate estimate for the cost of central office space as partitioned floor space cannot be compared with general office space. Customers seeking to rent office space generally have, and expect, many options, such as size, shapes, geographic locations, various facilities and services contained in the building, and, of course, price ranges. These buildings were constructed, or remodeled, to be general office space. The primary objective of the building management is to obtain and maintain (or

approach) 100% occupancy at rates that allow maximum profit. The competition between building managements can be very intense, particularly in a market that experiences an excess of vacant office space. The rates charged by the building management will be a reflection of the economic environment of the area - the greater the amount of vacant space, the more depressed the price. The downsizing, consolidations and cut-backs which many corporations are now experiencing, compounded by the over-building of the 1980s, has created an excess of office space in many cities, depressing the price significantly. In that environment, rental rates will fluctuate on the basis of what the market will pay, and have no relationship to the cost per square foot of the initial construction.

By comparison, central office space is limited, offers minimal choice as to location, provides only HVAC, security, network protection, backup DC power and facilities to meet company, state and federal regulations for fire, safety, etc. Central offices have limited number of doors, few interior walls, and are not engineered to have solid interior walls. Central offices make no attempt to compete with other structures in attracting rental customers, nor do they compete with each other. Central offices were not constructed with the intention of being used for any purpose other than the provision of telecommunications service. Central offices are not located in areas which will attract renters or customers. Quite the contrary, central offices are frequently

low profile buildings, without windows, sufficiently attractive, landscaped and maintained, yet entirely practical in design and located strategically to provide telecommunications services.

2) The BOMA report classifies office space within each city as either "Downtown" or "Suburban". This broad brush of categories fails to take into account geographic surroundings of the central office space in question. This classification is not specific enough to the central office locations that are being tarified. BOMA is based upon averages within large metropolitan areas and surrounding suburbs. These averages camouflage rates for specific locations within the larger whole which serves only to provide general range of the rates. For example, the BOMA Report shows the same rental rates for Ontario, California, Malibu, California, DFW Airport (Dallas-Ft. Worth), Texas and San Angelo, Texas. While the BOMA rates may coincidentally result in the same rates, it is obvious that the individual factors, comprising that average, are vastly different. There is a major disparity in property values alone, not only between California and Texas, but between San Angelo and DFW Airport.

To further illustrate, the following data is a summary of three GTE central offices within the Dallas region from Attachment 14 which demonstrates the inadequacies of the embedded and market value methods;

<u>Central Office</u>	Year Building Built	Replacement Investment per sq.ft.	Embedded Investment per sq.ft.
Denton-Main	1961	\$124.02	\$62.86
DFW Airport	1972	\$225.85	\$99.67
Plano-NW	1985	\$238.27	\$208.40

<u>Central Office</u>	Monthly Replacement Cost for Space per sq. ft.	Monthly Embedded Cost per sq. ft.	Monthly Market Based Rent (BOMA) per sq. ft.
Denton-Main	\$2.65	\$1.37	\$1.35
DFW Airport	\$4.83	\$2.16	\$1.35
Plano-NW	\$5.17	\$4.53	\$1.35

Unlike commercial office space, central offices are not intended to be maintained at 100% capacity for protracted periods of time. GTE uses a 10-year forecasting horizon to allow development of plans, allocation of monies, and construction time so that necessary expansion can occur to effectively manage growth of the network. Leasing space to interconnectors and the shorting of the acceptable planning horizon of 5 years, as required by the Exemption Order⁸, may result in premature exhaustion of GTE's central office space. This will require that GTE modify its construction plans, shift priorities for budgeting monies and potentially expand existing buildings at current construction costs, or construct new buildings at current land and construction costs.

Under a "cost causation" standard, replacement cost is an appropriate means to determine the level of central office floor space charges. Therefore, GTE believes

⁸ Para. 16.

its method provides the most accurate reflection of the true cost of purchasing central office floor space within a given location.

Support for GTE's position is found in the Commission's decision in the context of international facilities to move away from the net-book-cost standard to a market based pricing policy. Reevaluation of the Depreciation-Original Cost Standard in Setting Prices For Conveyances of Capital Interests in Overseas Communications Facilities Between or Among U.S. Carriers, CC Docket No. 87-45 ("D. 87-45") Report and Order, 7 FCC Rcd 4561 (1992), recon. denied, 8 FCC Rcd 4173 (1993). As contained in the Report and Order in D. 87-445:

We conclude that the net-book-cost standard should be replaced with market-based pricing. We find the current standard no longer promotes the efficient functioning of the international services market in an increasingly competitive environment. We further conclude the net-book-cost standard is inappropriate for carriers whose rates are now set by price caps rather than rate of return regulation. [7 FCC Rcd at 4561]

(g) Power Charges

(1) All LECs should provide the equations used to compute the costs of the AC power included in the DC power. The LECs should explain all variables and parameters used in the equations.

GTE calculated the monthly cost of generating DC power to the interconnector's equipment. Shown below is the equation with an example of the monthly cost for California:

Estimated Amperage Rating of equipment (AMPS) = 100

Voltage Rating of Equipment (Volts) = 48

Equipment Power Requirement $(100 * 48/1000) = 4.8 \text{ KWH}$

Cost of Commercial Power (i.e. California) = \$0.09

Hourly cost to power equipment $(\$0.09 * 4.8) = \$ 0.43$

Hours per day (24)

Days per month (30)

Monthly Cost to Power Equipment $(\$0.43 * 24 * 30) = \311.04

Efficiency and Heat Loss Factor = 1.4 (see explanation below)

Monthly Power Cost Corrected for Power Loss

$$(\$311.04 * 1.4) = \$435.46$$

Monthly cost per square foot $(\$435.46/100) = \$ 4.35$

Explanation of Assumptions: GTE estimated 100 amps within a 100 square foot cage for a customer deploying fiber optic terminals and DCS equipment. The efficiency and heat loss factor is a result of an inequality of heat generated by a rectifier (DC Output) versus efficiency losses in power conversion since no machine is 100% efficient (AC Input). Power that is purchased from electrical utilities is based on AC power consumption. Therefore, the DC Power utilized by telephone equipment must be multiplied by the factor (1.4) to determine the amount of AC power required.

The power generation cost (\$4.35 per square foot) was added to the material cost of the power plant supply, DC power cabling, cage construction, and AC wiring to determine the total DC Power rate element.

(h) Cross Connection Charges and Termination Equipment Charges

(1) The EIS Designation Order [at para 22(h)(1)] directs LECs to provide an explanation of what percentage of cross connection circuits are assumed to require repeaters or similar equipment in provision of the cross connection and to justify the necessity of such equipment.

GTE's rates do not include repeater equipment or similar equipment within the EIS configuration. Section 17.7.4(J) provides that if repeater equipment is required, the customer will be responsible to provide such equipment within the partitioned space.

(2) LECs should explain whether they are using a centralized or distributed EIS configuration and the benefits and drawbacks (from both an engineering and cost perspective) associated with each kind of system.

GTE selected a centralized (undedicated) interconnection configuration for EIS. Manual DSX bays installed for the purpose of EIS are placed in the normal DSX bay lineups in the central office. Likewise, digital cross connect system (DCS) equipment used for the purpose of EIS is placed in the normal DCS lineups. This centralized configuration offers several benefits. Since the engineer can utilize existing lineups for equipment, this configuration simplifies engineering and installation of the equipment. In addition, this configuration allows for better maintenance because all the cross connect equipment is located at common locations in the central office. Because of

the simplicity in design, this configuration offers cost savings in engineering, installation, and maintenance.

The distributed (dedicated) interconnection configuration has several drawbacks. Placing cross connect equipment near the interconnector's partitioned space would require special engineering and installation. With distributed interconnection, maintenance personnel would have several different equipment locations to maintain. All these factors would add additional costs to interconnection.

(3) The EIS Designation Order [at para 22(h)(3)] also directs LECs that included a POT frame or POT bay as part of their investment for any rate element to provide an explanation of the necessity of such equipment for interconnection and why cross connection cannot be established directly from the interconnector's cage to the MDF.

GTE did not dedicate a Point of Termination (POT) frame or POT bay to an interconnector as part of any rate element. GTE's interconnection configuration begins with the interconnector's cable at the manhole. This cable is pulled to the interconnector's cage area with a splice occurring in the cable vault. The interconnector must also provide the cabling from their equipment to the DSX cross-connect panel. The cross-connect panel is located in the POT Bay. This bay is part of GTE's normal DS1 or DS3 lineup. The patch panel is the only component that is dedicated to the interconnector. The MDF is not part of the configuration.

(4) Does not apply to GTE

(i) Security Charges

The EIS Designation Order at para 22(i) asks LECs to provide justification of any security requirements imposed on interconnectors, in particular, whether it is reasonable to require LEC-provided security escorts when an interconnector is merely

going to and from the partitioned area to work on its own equipment; when an interconnector is working in common operational areas such as LEC vaults, manholes, risers and racks; and when an interconnector needs to reach its partitioned space in unstaffed offices or during off-hours visits, particularly under emergency circumstances.

GTE stresses that security must be maintained in all central offices, especially where interconnectors have access. GTE is responsible for the protection of the telecommunication network within its service territory, including guaranteeing the integrity of local, state, and federal government and emergency communications networks vital to national security. GTE is also responsible for the privacy and security of all communications services it provides. For this reason, access to all central office locations, manholes, and associated facilities and equipment locations has always been restricted. Even internally, access to central offices is restricted to a limited number of GTE employees, its contractors or agents⁹.

One cannot dismiss as unnecessary or alarmist concerns over maintaining security of the central offices. GTE believes that preservation of security can be maintained in central offices, where physical separation of interconnector space and GTE's equipment cannot be obtained, through security escort of the interconnector. Security escort service in central offices where the interconnector's space is physically separated from GTE's equipment is not required, except in unsecured areas of the

⁹ Implementation of security restrictions on central office access occurred during civil disorders of the late 1960's and early 1970's. Security has been further tightened by restricting access as the result of work stoppages and situation when terrorist activities are a major concern, such as during the Gulf War and the terrorist activities in New York City this year.

building should access be required, e.g., cable vault, manhole, LEC switch area. Escort services to these areas will be required. Where there is physical separation, the interconnector would have unrestricted access to his equipment in the partitioned space.

"Merely going to and from the partitioned area" is not as simple an innocent as it would seem. In an office without a physical separation between GTE's equipment and the interconnector's partitioned space, an unescorted interconnector is essentially free to go anywhere and do anything he may choose within that office¹⁰. The interconnector's equipment is partitioned off from other interconnector, but GTE's equipment is unprotected. Allowing these competitors the freedom to wander about unescorted is bad security policy - like putting the fox in the hen house.

Without escort, GTE has no assurance that the employees of the interconnector will merely do work on his own equipment. Although some parties have complained about the escort requirement, they fail to see the mutual benefit which it provides. For example: an interconnector given unescorted access could be accused of damaging GTE or another interconnector's equipment; and where access records indicate that the interconnector was the only party in the office, the interconnector's ability to disprove responsibility would be far more difficult.

GTE's tariffs currently require interconnectors provide 24 hours advance notice for non-emergency access. As stated in GTE's Reply Comments to the initial EIS

¹⁰ Of the central offices currently appearing in the GTE tariffs, a physical barrier between GTE and interconnector's equipment cannot be constructed in a few offices which would require escort for the interconnector.